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July 7, 2021

VIA E-MAIL & OVERNIGHT MAIL

Attorney Melanie Bachman
Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: DOCKET NO. 503 – Arx Wireless Infrastructure, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 43 Osgood Avenue, New Britain, Connecticut

New Cingular Wireless PCS LLC's (AT&T) Response to Interrogatories

Dear Attorney Bachman:

On behalf of New Cingular Wireless PCS, LLC ("AT&T"), please find enclosed an original and 15 copies of our response to the Siting Council's Pre-Hearing Interrogatories.

Sincerely,

/s/ Thomas J. Regan
Thomas J. Regan

Encl.

Cc: Service List

64111814 v1-WorkSiteUS-024519/1567

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:

APPLICATION BY ARX WIRELESS INFRASTRUCTURE, LLC FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A WIRELESS TELECOMMUNICATIONS FACILITY AT 43 OSGOOD AVENUE, NEW BRITAIN, CONNECTICUT

DOCKET NO. 503

July 7, 2021

RESPONSES OF INTERVENOR NEW CINGULAR WIRELESS PCS, LLC d/b/a AT&T TO CONNECTICUT SITING COUNCIL PRE-HEARING INTERROGATORIES

Q1. Estimate the total cost of New Cingular Wireless PCS, LLC's (AT&T) co-location on the proposed facility. Break down the total cost into categories that AT&T deems appropriate. Are these costs all separate and additional to the costs noted on pages 31 and 32 of the Application?

A1.

Component	*Cost*
Equipment/Materials	*$114,000*
Construction	*$179,000*
Integration & Optimization	*$15,300*
Total	*$308,300*

These costs are all separate from the costs identified on pages 31 and 32 of the Application.

Q2. How would the cost of AT&T's co-location at the proposed site be recovered?

A2. AT&T's costs are recovered as part of business operations and services provided.

Q3. Referencing Attachment G of the Application, Sheet TR-2, provide the number of panel antennas and other equipment (e.g. remote radio heads) that AT&T would install at the 100-foot level of the tower.

A3. Three (3) CCI TPA65R-BU8DA-K antennas
Three (3) CCI DMP65R-BU8DA-K antennas
Three (3) Remote Radio Head model 4478 B14
Three (3) Remote Radio Head model 4415 B30
Three (3) Remote Radio Head model 4449 B5/B12

Three (3) Remote Radio Head model 8843 B2/B66A
Two (2) DC9-48-60-24-8C-EV surge protectors
One (1) DC6-48-60-18-8C-EV surge protector

Q4. What type of antenna mount would AT&T utilize for its proposed antennas? What is the structural design standard applicable to such antenna mount?

A4. AT&T will utilize three (3) Site Pro VFA12-M3-WLL sector mount frames. Design standards include EIA/TIA-222-H, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the International Building Code 2015 with 2018 Connecticut State Building Code.

Q5. Referencing Attachment I of the Application, State Historic Preservation Office letter dated November 24, 2020, would AT&T's antenna mounts, antennas, and other tower-mounted equipment be painted to match the tower finish?

A5. Yes. The antennae, wires, mounts, and associated equipment will be painted to match adjacent materials.

Q6. What measures would AT&T utilize at the site to ensure security and deter vandalism?

A6. AT&T's radio equipment cabinets are equipped with silent intrusion alarms. If someone attempts to tamper with or break into the cabinet, cell site technicians monitoring the site will be alerted and local police will be contacted.

Q7. Pursuant to CGS §16-50p(a)(3)(G), identify the safety standards and/or codes by which equipment, machinery or technology that would be used or operated at the proposed facility by AT&T.

A7. 2015 International Building Code with the 2018 CT Building Code Amendments.
National Electric Code (NFPA70).
2005 CT State Fire Safety Code with the 2009 Amendments.
TIA-222-G-4 "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures".
Occupational Safety and Health Administration (OSHA).

Coverage/Capacity

Q8. Provide existing coverage plots for each frequency band to be deployed by AT&T at the site. Provide a similar set of plots for each frequency band that include existing plus proposed coverage.

*A8. Please see the coverage plot included in **Attachment A**.*

Q9. Referencing Attachment E of the Application, Radio Frequency Analysis Report (RF Report), page 8, would the proposed facility interact with all 8 of the neighboring sites depicted? Explain.

A9. To some extent, the proposed facility will likely interact with all eight (8) neighboring sites at some point.

Q10. Referencing Attachment E of the Application, RF Report, page 7, provide the radial distances from the proposed facility to the neighboring sites identified as CT1104, CT2337, CT2585, CT5194, CT5255, and CT5403.

A10.

Site	Distance	Direction
CT1104	2.5 miles	NNE
CT2337	3.1 miles	N
CT2585	3.0 miles	NNE
CT5194	2.4 miles	SSE
CT5255	2.3 miles	NNW
CT5403	2.9 miles	ENE

Q11. Would AT&T's proposed co-location be needed for coverage, capacity, or both? If the project is needed for capacity, please respond to the following:

A11. While every new site enhances both coverage and capacity, the primary driver for this facility is coverage for the significant gap in coverage.

a) What nearby AT&T wireless facilities (or sectors) are nearing capacity limits, and at what frequencies?

Please see response to Q19 below. 700 MHz is the frequency experiencing the greatest capacity exhaustion.

b) Please include a projected exhaustion date for each of these sectors.

The sites/sectors referenced in the response to Q19 below have currently exhausted capacity.

c) Would the deployment of the proposed facility be sufficient to address AT&T's capacity concerns or would an additional facility be required in the near term to off-load traffic?

Deployment of the proposed facility will provide much needed capacity relief to the sites/sectors noted in the response to Q19 below. Once the facility is operational, AT&T will be able to assess any further needs for capacity relief in the area.

Q12. Would all of AT&T's frequencies be used to transmit voice and data?

A12. Yes.

Q13. Would AT&T's proposed co-location at the proposed facility provide 5G services, or would new antennas and/or equipment be required to provide 5G service in the future? Explain.

A13. AT&T delivers two types of 5G services:

AT&T 5G uses low-band spectrum (700 MHZ, 850 MHz, 1900 MHz, 2100 MHz and 2300 MHz); and,

AT&T 5G+, which is broadband 5G and is delivered via millimeter wave spectrum (24 GHz to 39 GHz).

The antennas that will be installed at the proposed facility will support 5G in the low-band spectrum and will not support the millimeter wave spectrum where broadband 5G+ operates. AT&T would need to install different antennas and/or equipment to provide broadband 5G+ services from this facility.

Q14. Referencing Attachment J of the Application, AT&T notes that other frequencies would be deployed in addition to the 700 MHz frequency. Does the 700 MHz act as a "base frequency" of the network where most of the wireless traffic occurs? Were 700 MHz signal propagation **plots and data provided to be conservative because other (higher) frequencies can provide less** existing coverage area? How do the other frequencies interact in AT&T's wireless system?

A14. As noted in the response to Interrogatory 11 above, coverage is the primary driver for this facility and the 700 MHz spectrum provides the greatest coverage and defines AT&T's coverage footprint. The higher frequencies (850 MHz, PCS, AWS, WCS) supplement the 700 MHz frequency and provide capacity for the network. By serving as many customers as the lower frequencies can reach, the higher frequencies minimize the loading on the 700 MHz spectrum, allowing it to maximize its geographic reach.

Q15. Referencing Attachment E of the Application, Radio Frequency Analysis Report, p. 4, AT&T's proposed co-location would provide about 0.3 mile of incremental main roadway coverage. Provide a breakdown (by road) of the existing coverage gaps for the main roads (e.g. Farmington Avenue) and the proposed incremental coverage distances for those main roads based on each proposed frequency band.

A15. New Coverage in Miles:

700 MHz:

Corbin Avenue	*0.27*
Allen Street	*0.03*

850 MHz:

Corbin Avenue	*0.27*
Allen Street	*0.00*

No new coverage is provided at PCS, AWS or WCS frequencies.

Current Gaps:

700 MHz:

Corbin Avenue	*0.73*
Allen Street	*0.03*

850 MHz:

Corbin Avenue	*0.73*
Allen Street	*0.04*
Farmington Avenue	*0.12*

PCS:

Corbin Avenue	*1.21*
Allen Street	*0.04*
Farmington Avenue	*0.48*
Washington Street	*0.09*

AWS:

Corbin Avenue	*1.31*
Allen Street	*0.05*
Farmington Avenue	*0.77*
Washington Street	*0.20*

WCS:

Corbin Avenue	*1.43*

Allen Street	*0.06*
Farmington Avenue	*1.14*
Washington Street	*0.22*

AT&T's 700 MHz frequency band provides no new in-vehicle coverage for vehicles traveling on Farmington Avenue, but the proposed facility will provide much needed capacity and in-building coverage along Farmington Avenue and the surrounding areas; the radio frequency report referenced as "Attachment E" should have included "capacity" on page 4. No new in-vehicle coverage is provided on main roads at PCS, AWS or WCS frequencies.

Q16. What is the lowest height at which AT&T's antennas could achieve its wireless service objectives from the proposed site? What would be the consequences in terms of hand-off, coverage and/or capacity relief if the proposed tower was ten feet shorter, i.e. AT&T's antennas were located at a centerline height that is ten feet lower than proposed?

Q16. The minimum height needed for AT&T antennas is the height requested. Incremental coverage in the area would be reduced if the facility were to be ten (10) feet lower. The height reduction would also impact any future collocators.

Q17. Would flush-mounted antennas provide the required coverage? Would the flush-mount configuration result in reduced coverage and/or necessitate greater antenna height with multiple levels of antennas? Explain.

A17. If AT&T is required to use flush-mounted antennas, AT&T would need to occupy three separate ten (10)-foot sections of the pole instead of one. The impact would be a loss of coverage which would necessitate a twenty (20)-foot increase in height to provide the necessary coverage. Of course, flush mounted antennas would also impact potential collocators which would likely also need to occupy two or three levels on the tower.

Q18. What are the existing signal strengths for 700 MHz and other proposed frequency bands within the area AT&T is seeking to cover from this site?

A18. Areas that AT&T is seeking to cover from this site are currently below the design threshold of -93 dBm.

Q19. Does AT&T have any statistics on dropped calls and/or ineffective attempts in the vicinity of the proposed facility? If so, what do they indicate? Does AT&T have any other indicators of substandard service in this area?

A19. Yes. AT&T's dropped/blocked call data for the neighboring sites CT1072 and CT1152 and their sectors that face directly into the area where reliable service is needed indicate elevated voice and data drops/blocks.

Backup power

Q20. Referencing Attachment G of the Application, Sheet TR-2, a backup generator is depicted. Is this generator for AT&T's own use? If yes, please respond to the following:

A20. Yes, the generator shown on Sheet TR-2 is for AT&T's own use.

a) What size is the backup generator in kilowatts?

15kW.

b) What is the fuel source for the backup generator?

Diesel.

c) If fueled by propane, what measures would AT&T implement or employ to ensure an adequate supply of backup power for the site in the event of a propane fuel shortage?

Not applicable.

d) Would the backup generator have containment measures to protect against fluid leakage?

The fuel tank for the emergency back-up generator is double-walled and includes leak detection alarms. The alarms are monitored 24 hours a day, 7 days a week. The generator is also equipped with a secondary containment for engine oil and coolant within a weather enclosure.

e) What would be the run time for AT&T's backup generator before it requires refueling, assuming it is running at full load under normal conditions?

AT&T will utilize a Polar 15kW, 8220-100-D-15-03, diesel generator which holds 54 gallons of fuel and could run for approximately 90 hours before refueling is required.

f) Would the backup generator run periodically for maintenance purposes? If so, at what frequency and duration? Would this be scheduled for daytime hours?

Yes, the back-up generator would run once a week for maintenance purposes for approximately 30 minutes during daytime hours.

g) Would the backup generator be managed to comply with Regulations of Connecticut State Agencies Section 22a-174-3b?

Yes, the back-up emergency generator will comply with the "permit by rule" criteria pursuant to R.C.S.A. Section 22a-174-3b.

Q21. Would a battery backup (if applicable) be used by AT&T to provide uninterrupted power and prevent a reboot condition? How long could the battery backup alone supply power to the facility in the event that the generator fails to start?

A21. Not applicable.

Public Safety

Q22. Would AT&T's proposed facility support text-to-911 service? Is additional equipment required for this purpose?

A22. Yes, the proposed facility will support text-to-911 service. No additional equipment is required to provide the service.

Q23. Would AT&T's antennas comply with federal E911 requirements?

A23. Yes, AT&T's antennas will comply with federal E911 requirements.

Q24. Would AT&T's installation comply with the intent of the Warning, Alert and Response Network Act of 2006?

A24. Yes, AT&T's installation will comply with the intent of the Warning, Alert and Response Network Act of 2006.

Q25. Would AT&T's proposed equipment at the proposed facility comply with Department of Energy and Environmental Protection noise control standards at the property boundaries?

A25. AT&T's proposed equipment, including the back-up power generator will comply with Department of Energy and Environmental Protection noise control standards. A noise analysis is being conducted and will be submitted when complete.

Q26. Why was the proposed site selected for FirstNet deployment?

A26. The proposed site was chosen because of capacity limits reached by surrounding AT&T sites.

Q27. Describe the additional equipment necessary to operate FirstNet services.

A27. FirstNet services will be supported by the equipment proposed for AT&T's facility; no additional equipment is necessary. FirstNet operates on spectrum known as Band 14. Band 14 is part of the 700 MHz band that all the major wireless operators use in their networks. This specific portion of the 700 MHz spectrum is deployed by AT&T as part of the FirstNet Public-Private Partnership. Under normal circumstances, this spectrum is available to both public safety users and AT&T customers, but priority is given to public safety use. In the case of a major emergency, the entire Band 14 can be dedicated to public safety users. If Band 14 is dedicated to public safety users, 700 MHz Band 5/12 will still be available to non-public-safety AT&T customers.

CERTIFICATE OF SERVICE

I hereby certify that on this day, July 7, 2021, an electronic copy of the foregoing was sent to the Connecticut Siting Council and:

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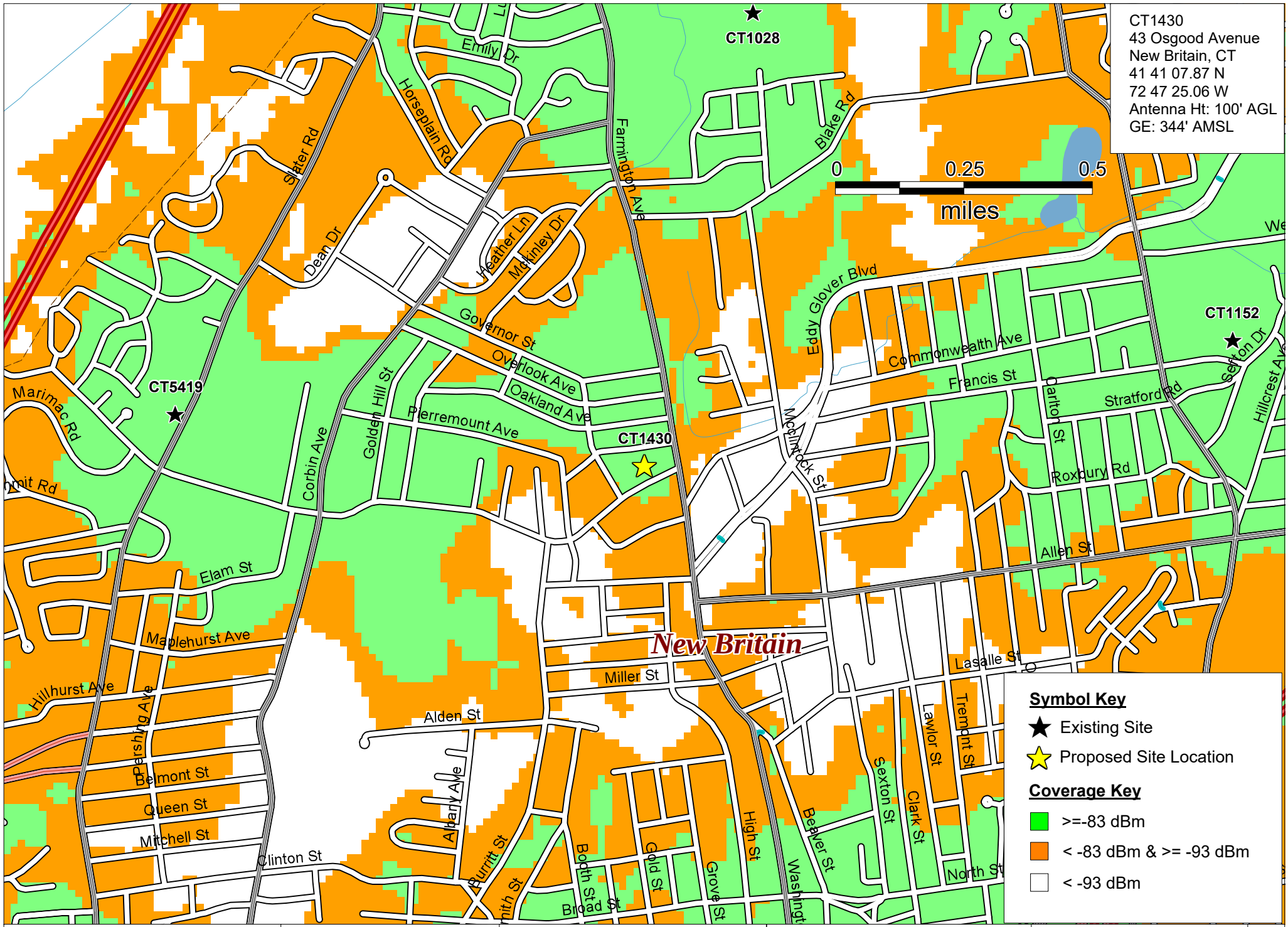
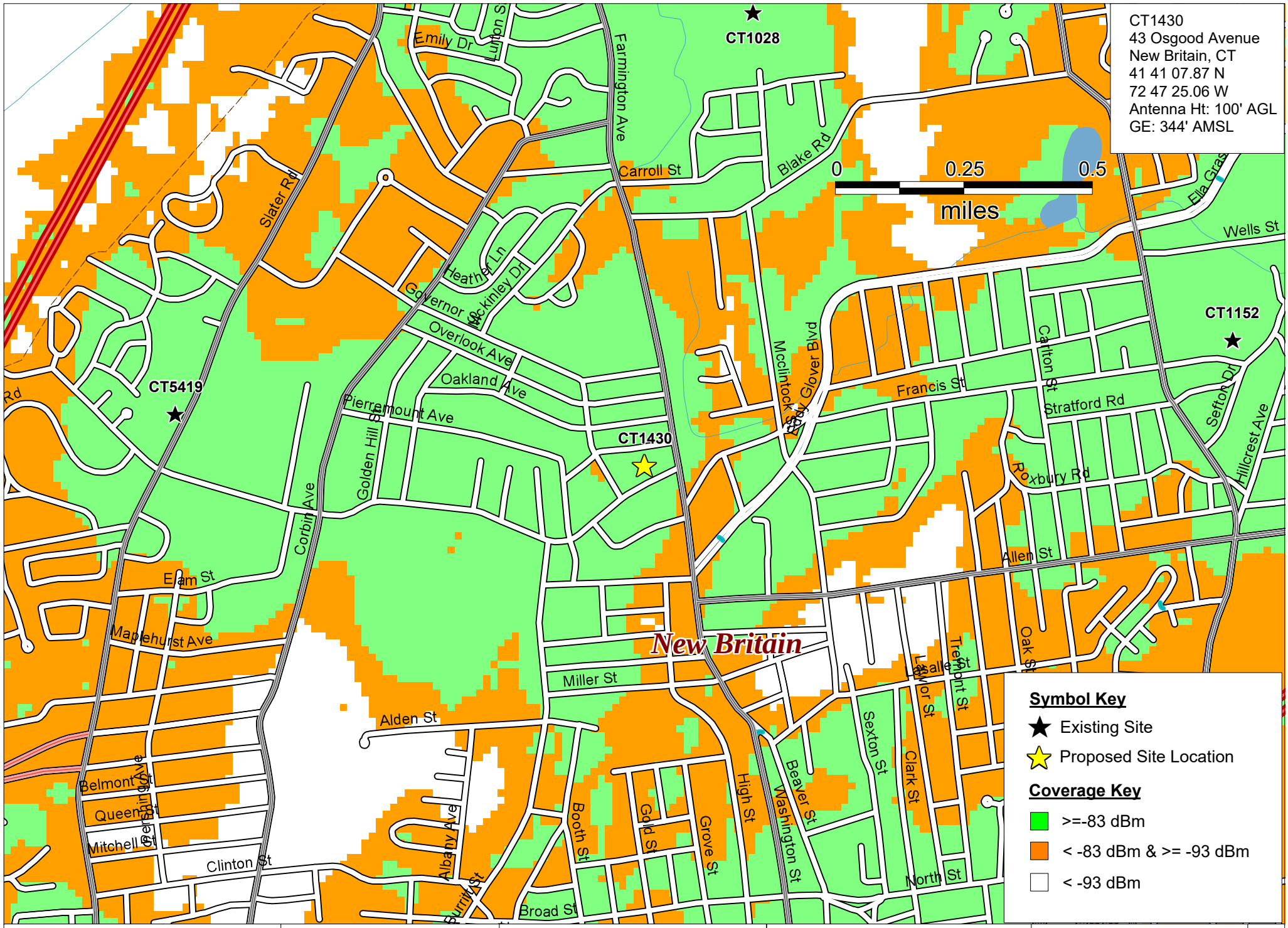
cc: Brian Leyden, AT&T
Lynn Brady, AT&T
Edward D. Pare, Jr.
SAI Group, LLC
C Squared Systems, LLC
Joseph E. Skelly, Jr., Esq., OCC, via e-mail (Joseph.Skelly@newbritainct.gov)

64110931 v3-WorkSiteUS-024519/1567

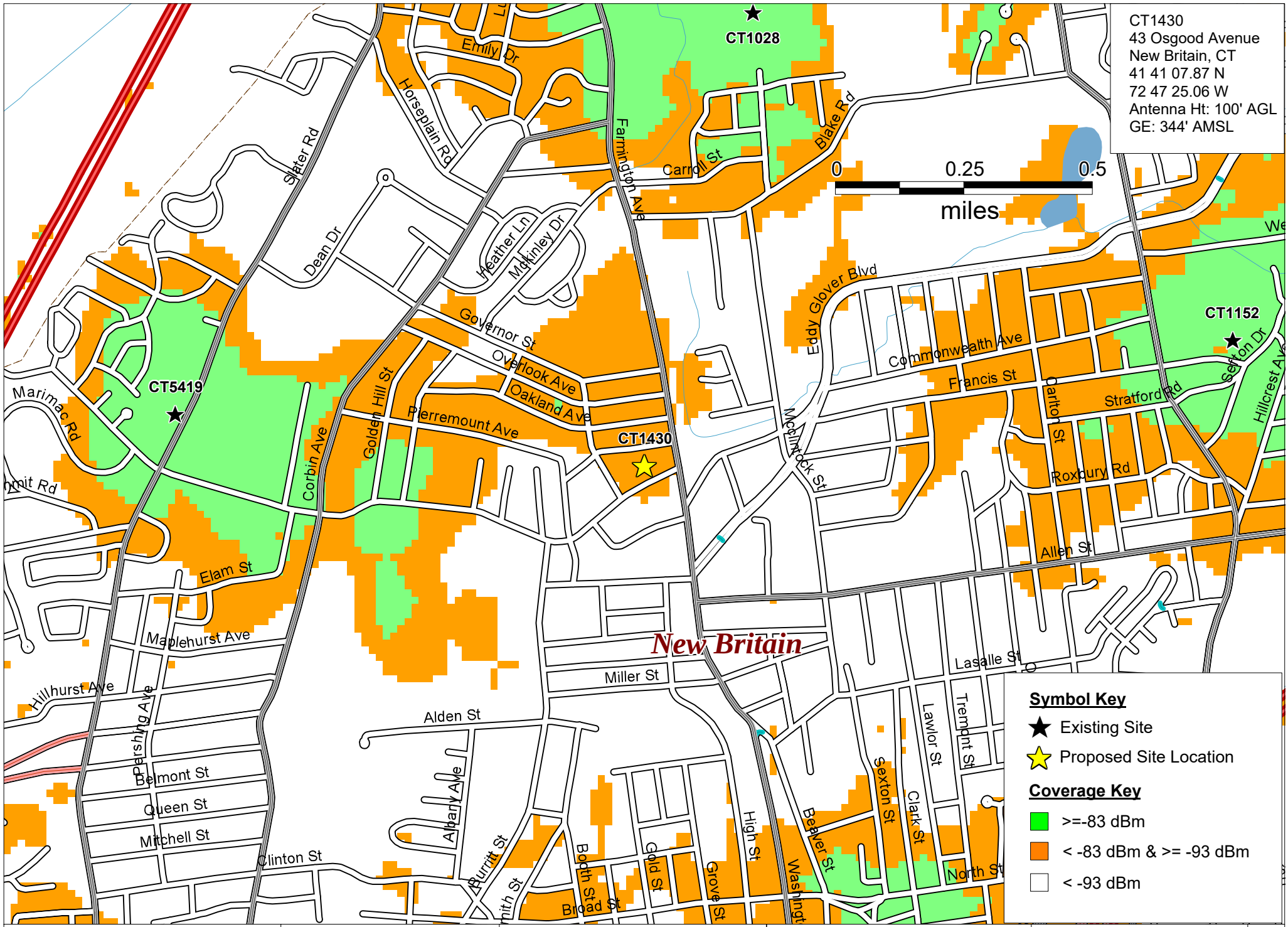
Attachment A



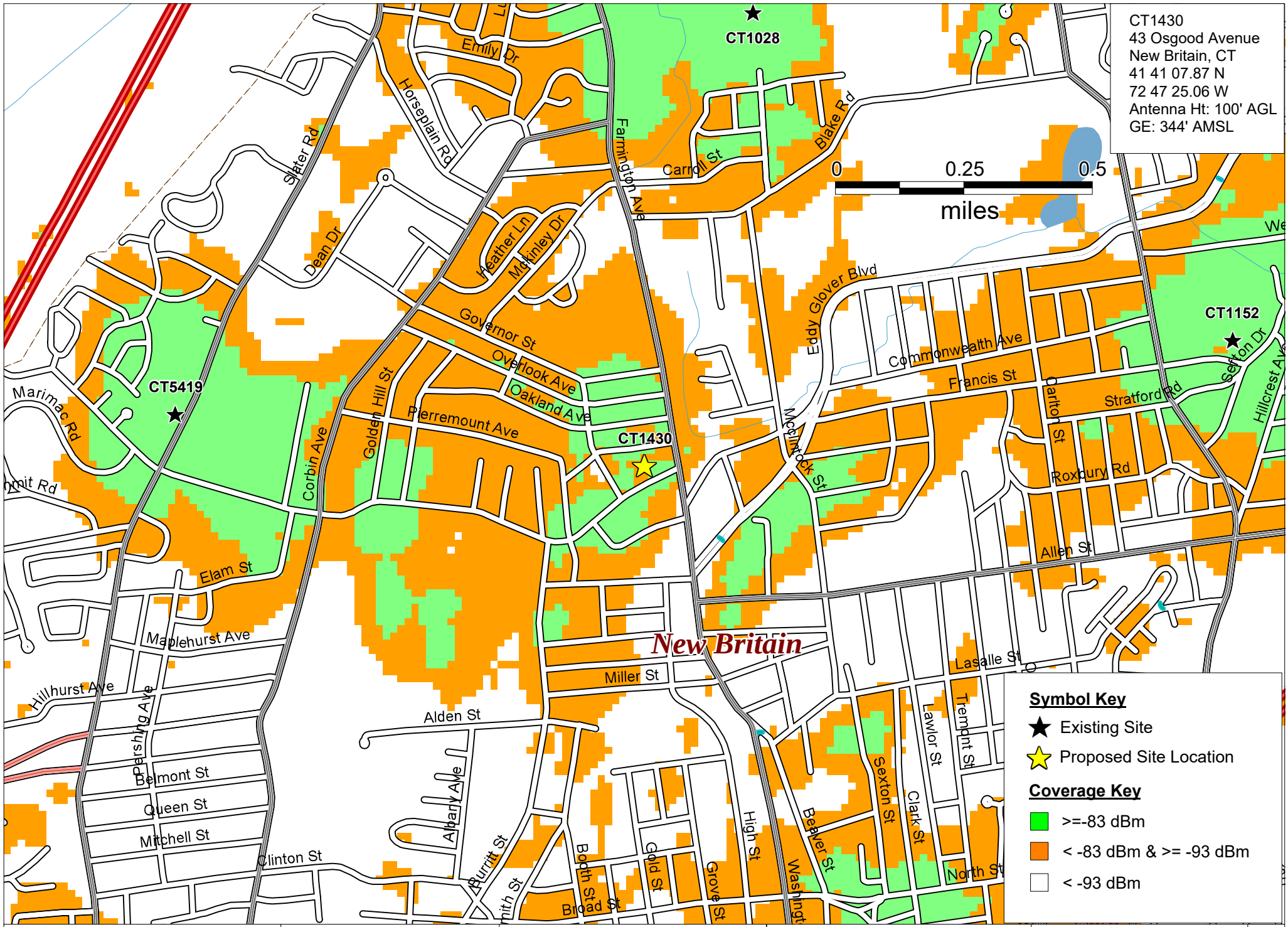
Existing Coverage 850 MHz LTE	CT1430	43 Osgood Avenue New Britain, CT	at&t	PREPARED ON DATE: 06/25/2021 REV 0



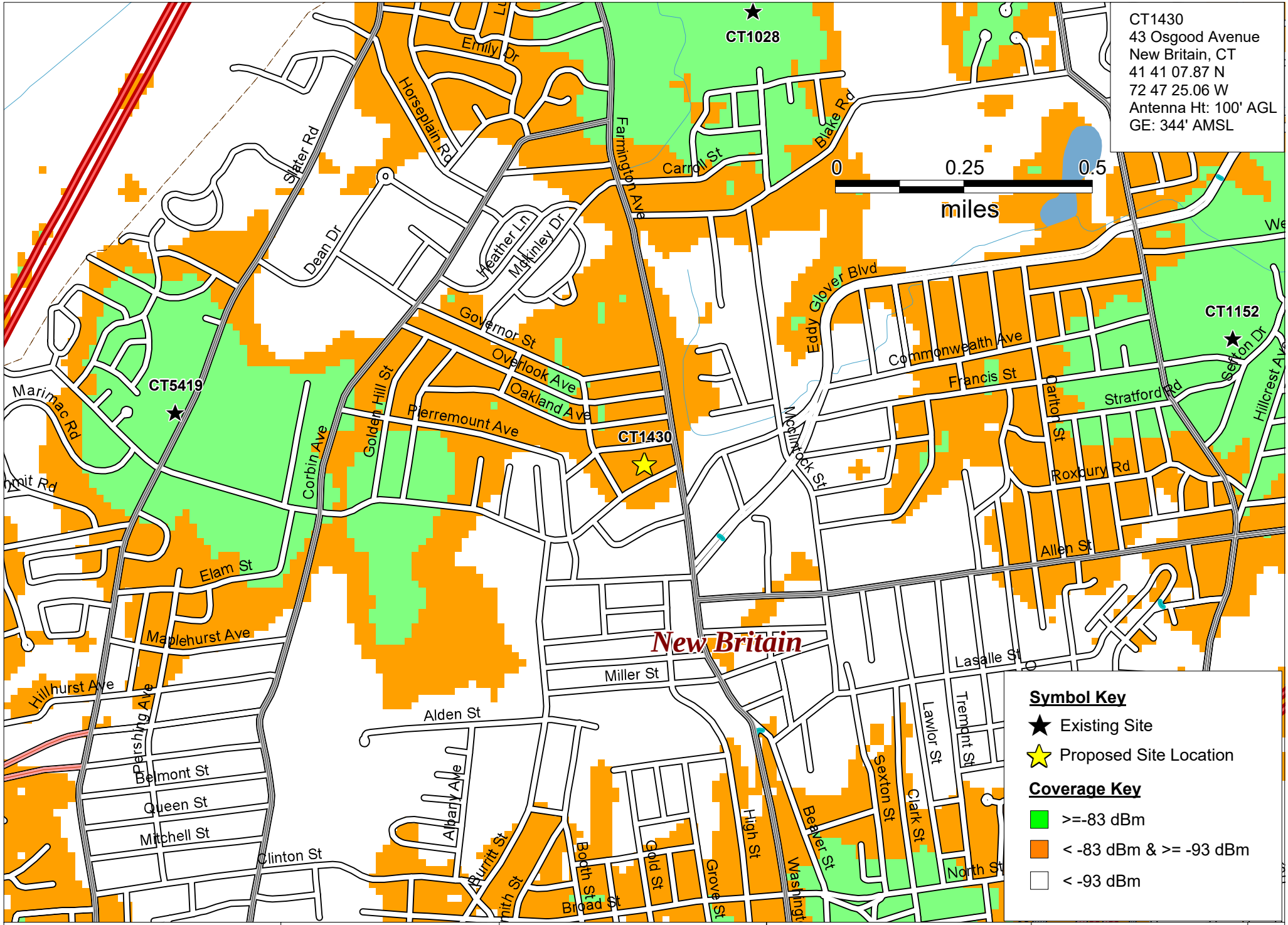
Existing & Proposed 850 MHz Coverage	CT1430	43 Osgood Avenue New Britain, CT	at&t	PREPARED ON DATE: 06/25/2021 REV 0



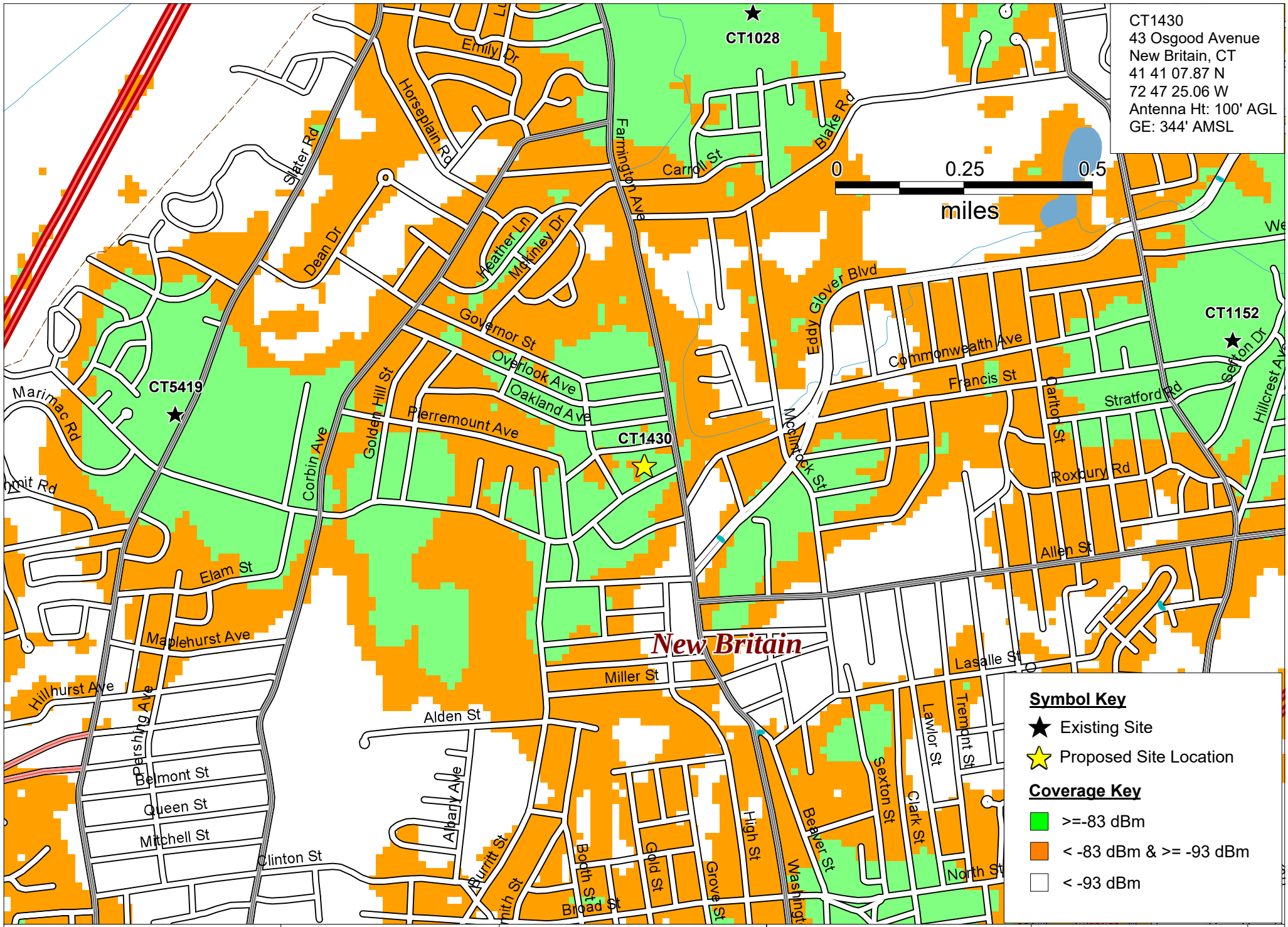
Existing Coverage AWS LTE	CT1430	43 Osgood Avenue New Britain, CT	at&t	PREPARED ON DATE: 06/25/2021 REV 0



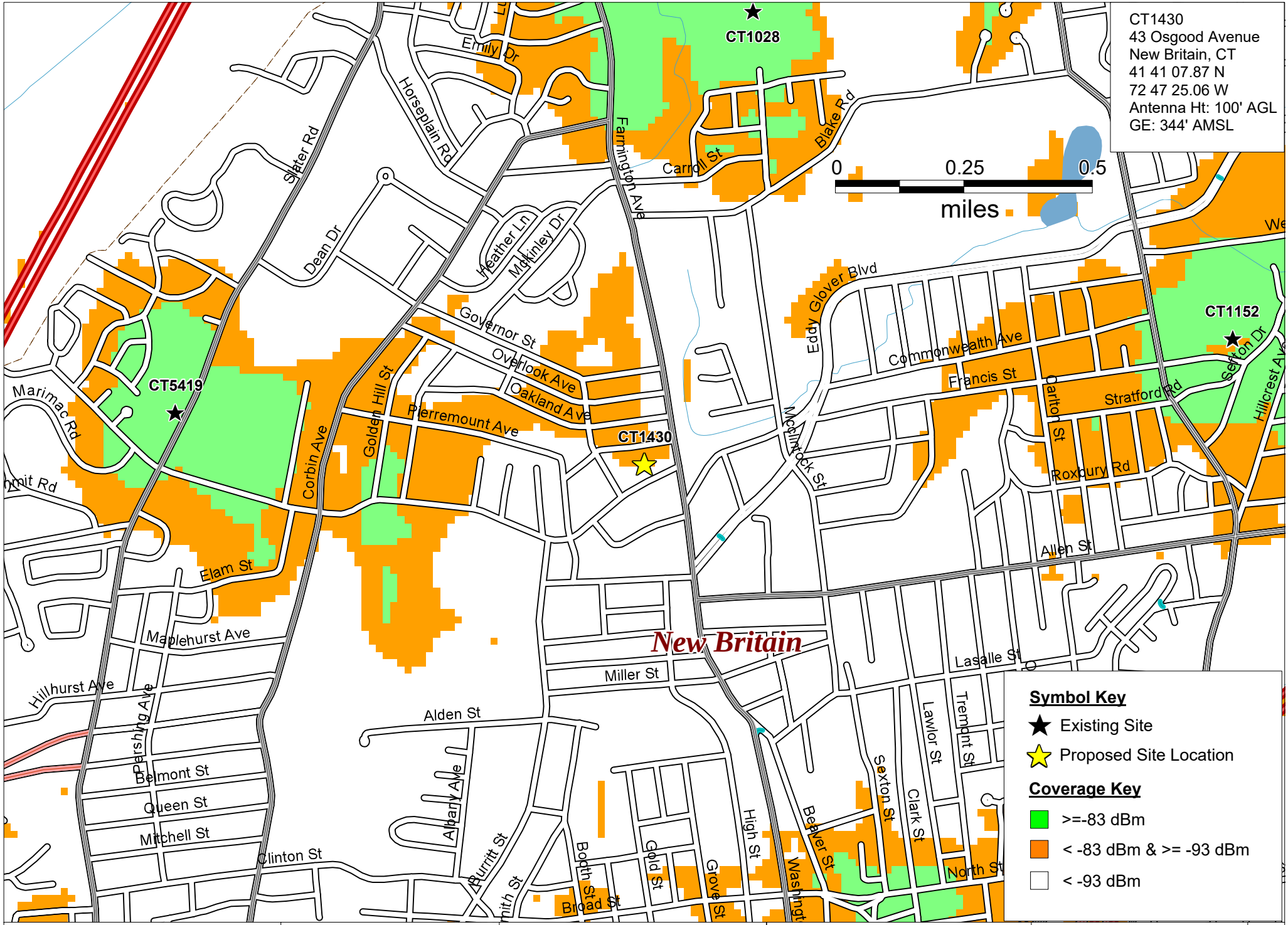
Existing & Proposed AWS Coverage	CT1430	43 Osgood Avenue New Britain, CT	at&t	PREPARED ON DATE: 06/25/2021 REV 0



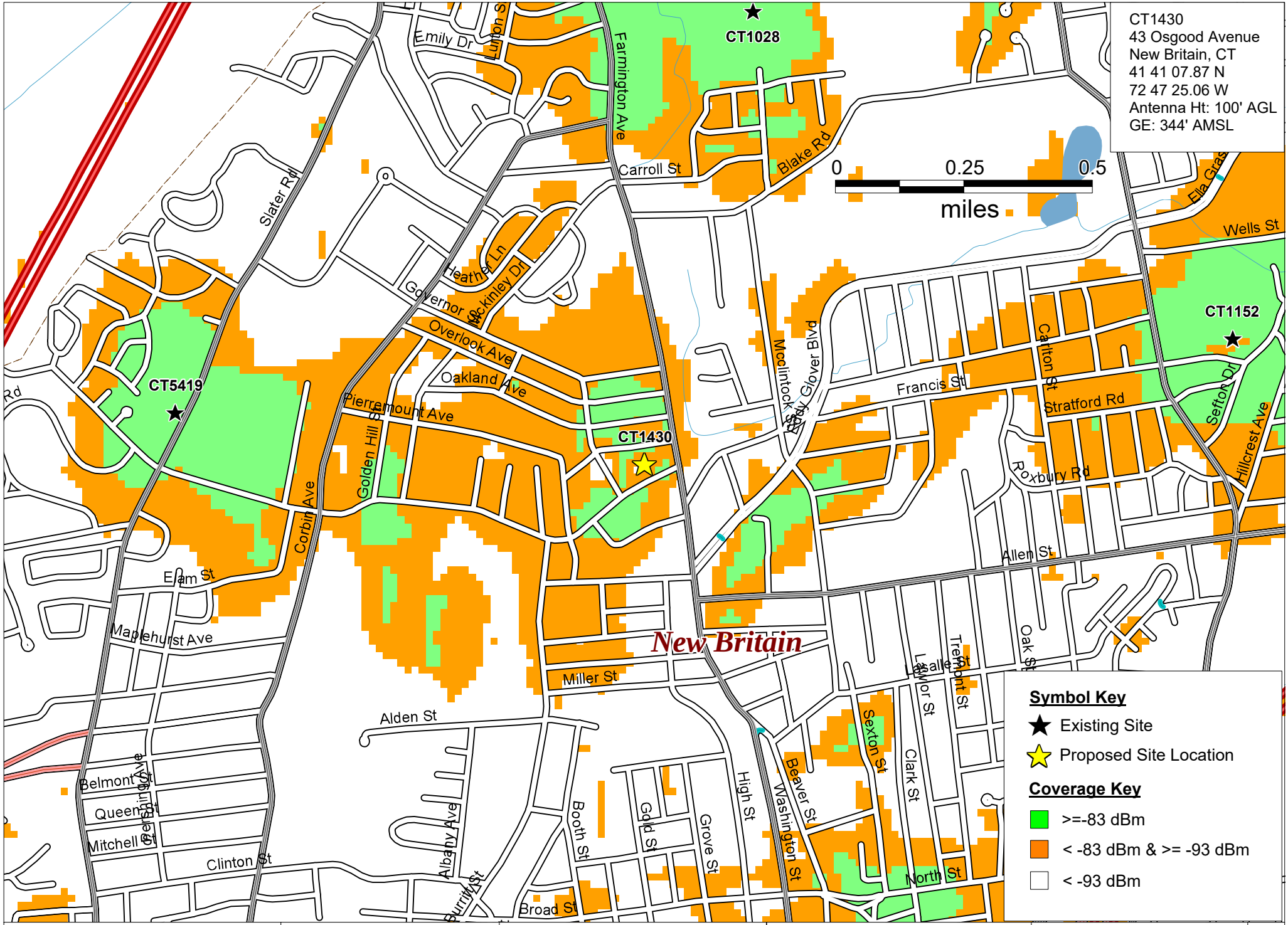
Existing Coverage PCS LTE	CT1430	43 Osgood Avenue New Britain, CT	at&t	PREPARED ON DATE: 06/25/2021 REV 0



Existing & Proposed PCS Coverage	CT1430	43 Osgood Avenue New Britain, CT	at&t	PREPARED ON DATE: 06/25/2021 REV 0



Existing Coverage WCS LTE	CT1430	43 Osgood Avenue New Britain, CT	at&t	PREPARED ON DATE: 06/25/2021 REV 0



Existing & Proposed WCS Coverage	CT1430	43 Osgood Avenue New Britain, CT	at&t	PREPARED ON DATE: 06/25/2021 REV 0